COUNTRY

PTO/SB/05 (03-01)

Approved for use through 10/31/2002. OMB 0651-0032

		51005	e required to respond to	Patent	and Tradems	ark Office: Uation using the contract of the c	.S. DEPART	MENT OF CO	MMERCE rol number.
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a				Attorn	torney Docket No. 11311-003-999 Total Lages			 -	
UTILITY PATENT APPLICATION				First Named Inventor or Application Identifier					
				Chris Stolte			S.I.S		
	(Only for ne	w nonprovisional applications under 37 (CFR 1.53(b))	Express Mail Label No.		No. EV 3	EV 313 841 705 US		
APPLICATION ELEMENTS See MPEP chapters 600 concerning utility patent application contents.				Commissioner for Patents P.O. Box 1450 Mail Stop PATENT APPLICA' Alexandria, VA 22313-1450			ATION		
1. 🖾	Fee Transn	nittal Form original, and a duplicate for fee processi	ng)	7. 🔲	(Appendix)			ible or Compute	er Program
2. 🛛	•	claims Small Entity status, see 37 C.F.R. §		8. 🔲	(if applicabl	and/or Amino . le, all necessar	<i>'Y)</i>		
3. 🛛	Specification	on	[Total Pages 58]			Computer Read			
_	(preferred arrangement set forth below, MPEP 1503.01) - Descriptive title of the Invention - Cross Reference to Related Applications - Statement Regarding Fed sponsored R&D - Reference to Microfiche Appendix		3.01)		i. [ii. [Specification S CD-ROM o paper ment verifying	or CD-R (2 co	pies); or	
	- Backgrou - Brief Sur	and of the Invention nmary of the Invention scription of the Drawings (if filed)			ACCOM	1PANYING	APPLICA	TION PAR	rs
		Description of the Invention (including d	rawings, if filed)	9. 🛛	Assignme	ent Papers (cov	er sheet & do	cument(s))	
	- Claim(s)			10. 🗆	(when the	.73(b) Stateme ere is an assign	ee)	Power of	Attorney
4. 🛛		(i) (35 USC 113)	[Total Sheets 24]	11. 🗆	-	ranslation Doc	ument (if app		. IDe
5. 🖾	Oath or D	eclaration	[Total Sheets 3]	12. 🖾		on Disclosure t (IDS)/PTO-1	449	Copies of Citations	IDS
	a. 🛛	Newly executed (original or copy)		13. 🗆		ary Amendmen			
\	b. Copy from a prior application (37 CFR 1.63(d)) (for continuation/divisional with Box 18 completed) i. DELETION OF INVENTOR(S) Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).			14. ⊠ 15. □ 16. □	(Should b Certified (if foreign Nonpubli	eceipt Postcard be specifically if Copy of Priori n priority is cla ication Reques ich form PTO/S	itemized) ity Document nimed) t under 35 U.:	(s) S.C. 122 (b)(2)(i). Applicant
6. 🗆	Application	on Data Sheet. See 37 CFR 1.76		17.					
18. If a		NG APPLICATION, check appropriate	box and supply the requisi	te inform	ation below ar	nd in a prelimi	nary amendm	ent, or in an Ap	plication
☐ Cont	tinuation	☐ Divisional ☐ Continuation-i	n-part (CIP) of prior	applica	tion No.:	filed	i.		
Prior ann	dication info	rmation: Examiner:				oup Art Unit:			
For CO	NTINUATIO	ON OR DIVISIONAL APPS only: The art of the disclosure of the accompanyi	itly omitted from the sub	mitted a	pplication par		h or declarat porated by r	ion is supplied eference. The	under Box incorporatio
Can omy	be renea up	19	. CORRESPONDE	NCE A	DDRESS				
NAME									
ADDRE	SS								
CITY					STATE			ZIP CODE	

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Box Patent Application, Washington, DC 20231.

TELEPHONE

FAX

PENNIE & EDMONDS LLP

COUNSELORS AT LAW 3300 Hillview Avenue Palo Alto, California 94304

ATTORNEY DOCKET NO. 11311-005-999

Date: September 16, 2003

Commissioner for Patents P.O. Box 1450 Mail Stop PATENT APPLICATION Alexandria, VA 22313-1450

Sir:

The following utility patent application is enclosed for filing:

Applicant(s):

Stolte et al.

Executed on:

Herewith

Title of Invention:

COMPUTER SYSTEMS AND METHODS FOR VISUALIZING DATA

PATENT APPLICATION FEE VALUE

TYPE	NO. FILED	LESS	EXTRA	EXTRA RATE	FEE	
Total Claims	90	- 20	70	\$18.00 each	\$	1260
Independent	3	- 3	0	\$84.00 each	\$ 0	
Minimum Fee						750
Multiple Dependency Fee If Applicable (\$280.00)						0
Total					\$	2010
Applicant qualifies for the 50% Reduction for Independent Inventor,						
Nonprofit Organization or Small Business Concern					\$	1005
Total Filing Fee						1005

has not and will not be the subject of an application filed in another country, or multilateral agreement, that requires publication at eighteen months after filing. I	dication
multilateral agreement, that requires publication at eighteen months after filing. I	under a
	hereby
request that the attached application not be published under 35 U.S.C. 122(b).	

[] Priority of application no. filed on is claimed under 35 U.S.C. § 119.

[] The certified copy of the priority application has been filed in application no. filed on .

[] Amend the specification by inserting before the first line the following sentence: This is a continuation-in-part of application no. filed on.

Please charge the required fee to Pennie & Edmonds LLP Deposit Account 16-1150. A copy of this sheet is enclosed.

Respectfylly submitted,

41,796

Andrew J. Gray, IV

Reg No.

PENNIE & EDMONDS LLP

Enclosure

This form is not for use with continuation, divisional, re-issue, design or plant patent applications.

Express Mail No.	EV 313 841 705 US
ATTORNEY DOCKET	11311-005-999
NO.	

COMPUTER SYSTEMS AND METHODS FOR VISUALIZING DATA

TABLE OF CONTENTS

	FIELD OF THE INVENTION	
2.	BACKGROUND OF THE INVENTION	1
3.	SUMMARY OF THE INVENTION	4
4.	BRIEF DESCRIPTION OF THE DRAWINGS	6
5.	DETAILED DESCRIPTION OF THE INVENTION	8
	5.1 Overview of an Exemplary System	9
	5.2 Exemplary Method	12
	5.3 Illustrative Types of Database Hierarchy and Database Organization	
	5.3.1 Data organization	.31
	5.3.2 Relational databases	
	5.3.3 Hierarchical structure	
	5.3.4 Data cubes	.33
	5.3.5 OLAP versus OLTP	
	5.3.6 Multidimensional analysis operations	.35
	5.3.7 Data characterization for visualization	
	5.3.8 Layers	
	5.3.9 Conceptual data flow	.37
	5.4 Spreading a dimension across multiple axes	
	5.5 References Cited	
	5.6 Alternative Embodiments	